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NOTES ON THE FLORA OF THE STATE OF WASHINGTON—III

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By continued exploration and study, I have been able to add some more interesting records for this State, as follows:

POA INTERIOR Rydb. Dr. Hitchcock reports that Mr. Suksdorf found this species in Spokane Co., and to this record can be added mine from much farther west: "base of Three Brothers along Nigger Creek, Kittitas Co., 900 m., *Thompson* 10531."

CAREX SAXIMONTANA Mack. While hiking to Billy Goat Pass in Okanogan Co., I noticed a peculiar grass-like sedge by the trail beneath yellow pines. It agrees very well with the above, except the achenes are larger than given by Mr. Mackenzie. It is a new record for this State, being from "lower slopes of Billy Goat Mountain, 800 m., *Thompson* 10898."

CAREX SYCHNOCEPHALA Carey. Mr. Chas. B. Fiker, Okanogan orchardist, still finds time to steal away from fruit raising long enough to turn up interesting things from that interesting and little-known region. In his collection of 1933 was a *Carex*, one so strikingly different from anything I had previously seen that I at first thought it must be undescribed. But rather than run the risk of merely making another useless synonym, I was willing to consult someone who was in a much better position than I to compare it with known species of its group. I appealed to Dr. Svenson, and he reported the specimen to be typical *Carex sychnocephala* Carey. This constitutes a remarkable extension in range for the species, being found "on shore of Little Goose Lake southeast of Omak, 26 July 1933, *Fiker* 1295 and 1304."

SALIX BRACHYCARPA Nutt. Two years ago, while descending from a high ridge in the Mount Stuart region, I hastily collected a slender willow by a spring above Beverly Creek. Dr. Ball tentatively called it *Salix brachycarpa* Nutt. This past season, while botanizing along

Boulder Creek, twenty-five miles west of the Mount Stuart location, I again found the willow, this time in great abundance by the banks of the mountain stream. I made a large collection of both staminate and pistillate plants, and when submitted to Dr. Ball, he pronounced them typical *S. brachycarpa*, and our records for the species are: "by spring on steep slope, head of Beverly Creek, Kittitas Co., 1200 m., 17 August 1932, *Thompson* 8885; margin of mountain stream, along Boulder Creek, Kittitas Co., 1000 m. 18 June 1934, *Thompson* 10697 and 10698." Both stations are near the altitudinal limit for *Pinus ponderosa*.

ARABIS LYRATA L. var. KAMCHATICA Fisch. in DC. Syst. ii: 231 (1821). Dr. Hultén¹ states that our northwestern material which has been referred to var. *occidentalis* S. Wats.² is identical with the above variety. While on Mount Baker last summer, I found this rather rare crucifer in great abundance at about 1800 meters, just below perpetual snow. Mr. Suksdorf's collection cited by Piper² must have grown from a chance seed that had been washed down from the higher altitudes where I found it. In spite of the dense fog and the twelve long weary miles back to the town of Glacier all alone, I took time to pick up several very interesting species in just a few minutes: *Poa alpina* L., *Saxifraga Lyallii* Engl., *Epilobium latifolium* L., *Smelowskia ovalis* M. E. Jones, and *Senecio Elmeri* Piper, and also an *Arabis* sp. with flat erect pods, as yet undetermined. Exact station for the crucifer was "Heliotrope Ridge, Mount Baker, Whatcom Co., 1800 m., *Thompson* 11239."

LEPIDIUM CAMPESTRE (L.) R. Br. A large patch of apparently this species was found by an artificial pond made by irrigation overflow, five miles east of Cle Elum, Kittitas Co., 9 May 1934, *Thompson* 10413.

TEESDALIA NUDICAULIS (L.) R. Br.; Ait. f., Hort. Kew. ed. 2, iv: 85 (1812). Last spring while botanizing in those peculiar prairies just south of Tacoma, I found a peculiar *Lepidium*-like crucifer, the identity of which puzzled everyone who examined it. Several weeks ago I happened to read Dr. Blake's³ account of having found a crucifer which was not in any of our manuals. The description given by him seemed to fit my plant, and I started on a search through European floras for a description and perhaps a cut. I found an excellent figure in Lindman's *Bilder ur Nordens Flora*, plate 208. The plate matched my collection exactly. A few days after this, I received a letter from Mr. John Thomas Howell of the California Academy of Sciences, and he also had hit upon the identification of my crucifer, but in an entirely different manner. Then to make it all the more interesting, I received another collection from Mr. I. C. Otis, who had found it in another county. Those prairies were thoroughly botanized by Prof. J. B. Flett years ago and if it was there then, it is not likely that his keen

¹ Hultén. *Flora of Kamtchatka* ii: 165 (1928).

² Piper. *Contr. U. S. Nat. Herb.* xi: 292 (1906).

³ RHODORA xxxvi: 413 (1934).

eyes would have overlooked it. We can conclude then that the species has been recently introduced, but how and when is unknown. Now to Dr. Blake's eastern records can be added ours as follows: "gravelly prairies near Roy, Pierce Co., 6 April 1934, *Thompson* 10101; south of Tumwater (near Olympia), Thurston Co., *I. C. Otis* 1845.

DRABA AUREOLA S. Wats. Late in the season of 1933, three of us climbed up the slopes of Mount Rainier to the foot of Flett Glacier, where we found this rare *Draba* growing in great abundance in the barren moraines where it seemed impossible for a plant of any kind to grow. Associated with it were *Smelowskia ovalis* M. E. Jones, *Cardamine bellidifolia* L., and *Polemonium elegans* Greene. Nearly every *Draba* was freely branched, and this surprised us not a bit since Dr. Henderson¹ states that "specimens from Mount Rainier . . . are unbranched," and concludes that the branched specimens he has from the North Sister of Oregon are entitled to varietal rank as var. *paniculata*. This kind of reasoning makes one wish that there could be more real research done before rushing into print with a new species or variety. I am sure that this species will be found to be branched from even its type locality, provided it is collected late enough in the season! The branched form "growing in the moraines of Flett Glacier, Mount Rainier, 1800 m., 27 August 1933, *Thompson* 10001" was widely distributed.

DELPHINIUM VIRIDESCENS Leiberg. This species has eluded me every year until last summer when I found it abundant in Camas Land, and in a bog on Tip Top peak nearby. It prefers to grow in decidedly moist situations somewhat in the open. The large collection I made has been widely distributed as from "bog on Tip Top, 1000 m., Chelan Co., 26 June 1934, *Thompson* 10793."

SAXIFRAGA ADSCENDENS L. Prof. Flett found this many years ago in the mining region of Mount Baker; it is cited by Piper, but omitted entirely from the very incomplete "Flora of Mount Baker," by St. John and Hardin.² Last summer while botanizing on Skyline Ridge, a northern extension of Mount Baker, my assistant found several plants growing among *Romanzoffia sitchensis*, and they could easily have been mistaken for immature plants of the latter, until the flower was carefully examined. For the sake of permanent record, the collection was distributed as from "partially shaded cliff on Skyline Ridge, Mount Baker, 1500 m., *Thompson* 10980." One tiny plant was later found in Marmot Pass, Olympic Mts., about 1600 m., by my same assistant, Mr. Howard S. McGee.

PENSTEMON Nelsonae Keck & Thompson, sp. nov., herba perennis 5-9 dm. alta usque ad basim inflorescentiae glaberrima; rhizomatibus prostratis moderati lignescentibus; caulibus paucis erectis virgatis; foliis integris vel obscure obsolete denticulatis crassiusculis paullo glaucis, basilibus lanceolatis ad basim apicemque acuminatis 5.5-13

¹ RHODORA xxxiii: 204 (1931).

² Flora of Mount Baker, in Mazama xi: 52-102 (1929).

cm. longis 9–17 mm. latis, petiolis gracilibus laminis fere aequalibus, caulinis sessilibus lanceolatis vel ovato-lanceolatis basi amplexicaulibus ad 12 cm. longis ad 40 mm. latis gradatim reductis quam internodiis brevioribus; thyrso virgato spiciformi interrupto glandulari-pubescenti, pedunculis cymularum (8–10 geminis) brevibus appressis; calyce 5.5–7.5 mm. longo, lobis lineari-lanceolatis attenuatis integris herbaceis vel anguste scarioso-marginatis; corolla flava 17–21 mm. longa exteriori glandulari-puberula, tubo superne sensim modice ampliata, fauce 5 mm. crassa, limbo breviter bilabiato patenti, labio inferiore intus pilis albis barbatis; staminibus fertilibus inclusis glaberrimis, loculis antherarum usque ad apicem dehiscentibus 1.0 mm. longis ovato-oblongis, filamentis sterilibus apice superne dense flavo-barbato; capsula 5–6 mm. longa, ovoidea; seminibus numerosis acutangulis, testa sulphurea-marginata.

TYPE: Burned over land at base of Mt. Angeles, Olympic Range, Clallam County, Washington, at 550 m. (1800 feet) altitude, June 9, 1934, *J. William Thompson* 10617 (Dudley Herbarium of Stanford University; isotypes in Carnegie Institution, and in private herbarium of J. William Thompson). The only other known collection of this species is from Mrs. Oscar Nelson's garden, within a few hundred feet of the exact type station, *Thompson* 9474 (Thompson, C. I.). This may be known as the cotype, as the plant was brought into the garden from the type locality.

It is a pleasure indeed to name this handsome species in honor of Mrs. Oscar Nelson, in whose delightful wild flower garden it was that Mr. Thompson first saw the plant in full bloom. On inquiring from where it came, he was very much surprised when Mrs. Nelson pointed to the burn just back of her house. Mt. Angeles has been visited by scores of botanists, nearly all of whom have seen Mrs. Nelson's wonderful rockery of native plants, and how the species has escaped notice all this time is a mystery. Later search was rewarded by finding three plants still persisting among the second growth fir and bracken. The plant grows in a region that has been swept over by successive forest fires, and probably represents the remnant of a once abundant species. It makes a showy garden plant, and it should be introduced into cultivation. However, seed from the garden specimen failed to germinate for Mr. Thompson.

Penstemon Nelsonae belongs in the section *Graciles* Pennell. Our material would indicate it to be composed of the largest individuals in the section, the other species seldom attaining the height of 5 dm. The stout stems of *P. Nelsonae* may attain a thickness of 8 mm. Morphologically, the nearest known relative of *P. Nelsonae* appears to be *P. attenuatus* Dougl., a species of eastern Washington and adjacent Idaho. The two are similar in having glabrous herbage except for the

glandular-pubescent inflorescences, in glandular-puberulent corollas with bearded lower lip, in yellow-bearded staminodes and in general shape and size of flowers. *Penstemon Nelsonae* is of larger stature throughout than *P. attenuatus*. It is further removed from this and the other species of the *P. confertus-procerus* complex by the denticulations of the leaves. Our new species is well isolated from the other species of the section *Graciles* excepting the small-flowered *P. procerus* Dougl. (the form *P. Tolmiei* Hook.), and it is the only yellow-flowered *Penstemon* occurring west of the Cascades in Washington.

ASTER MERITUS A. Nels. (*A. bakerensis* St. John). Dr. Muenscher¹ has already reviewed the "Flora of Mount Baker," and expressed his surprise to find so many species common to the region that were omitted by the authors. On one short visit there, I found thirty-three species not in the Flora, and strangely enough, I found most of them near their base camp, Mount Baker Lodge. Since its publication, I have made several visits there, and paid especial attention to the forms and species which were described as new. Specialists to whom I have submitted this material have reduced the new species one by one until only *Aster bakerensis* remained. I made a long, hard trip to Grouse Butte last summer, and found the *Aster* growing in the crevices of the cliffs at about 1000 m., on Grouse Butte, and the specimens were much larger than indicated in the original description. Now Dr. Blake declares this species to be typical *Aster meritus* A. Nels. Dr. St. John in the original description states: "This new species does not appear to have any close relatives in North America," and this positive statement of a well known botanist caused me to doubt Dr. Blake at first. I sent material to Dr. Aven Nelson to compare with the type, and his ready agreement with Dr. Blake removes all doubts. But it is an interesting extension in range. My collection "Grouse Butte, Mt. Baker region, 1000 m. 10 August 1934, Thompson 11225," has been widely distributed.

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VIOLA ROTUNDIFOLIA ON LONG ISLAND.—In the fall of 1931 an unusually broad-leaved violet was found on the terminal moraine north of Queens Village. Fruiting material obtained the following spring (Svenson no. 4746) showed conclusively that the species was *Viola rotundifolia*, which is mentioned from a "single station on L. I." by Taylor, Fl. Vic. N. Y. 453 (1915). This is perhaps based on the citation, "Long Island City, Hon. A. Brown" in Jelliffe, Fl. Long Island 117 (1899), but Mr. Wilson could not locate any specimen in the herbarium of the New York Botanical Garden. The area has

¹ Torrey, xxxi: 15 (1931).